

ABSTRACT OF THE INVENTION

A method and system for power source management of a portable device.

A power source used to supply electrical energy for a portable device should ideally operate with a constant terminal voltage. However, the terminal voltage of

5 a cell or group of cells used as a source of electrical energy can be expected to reduce in amplitude over its operational lifetime. Near the end of operational lifetime, the terminal voltage of such a source can be expected to decrease rapidly. Furthermore, the source terminal voltage will also exhibit significant variations in amplitude in response to changes in electric current demands on the

10 source. Such source voltage variations can impair or even prevent proper operation of the electronic circuits within the portable device. Power management for proper operation of a portable device is necessary to ensure proper device operation and to prevent loss of data. The present method and system controls portable device operation by periodic determination of average source terminal

15 voltage which is faster and simpler than continuous monitoring used with present systems. Comparison of the periodic average source terminal voltage with stored operational voltage limits allows either temporary or permanent curtailment of certain device operations. Such action can be used to prevent any loss of device data. Further, the present method offers the advantage of identifying momentary

20 fluctuations in source terminal voltage caused by temporary demands in source current levels. Thus, continuous monitoring and prior knowledge of source load demands and equipment as required by present methods are eliminated.